



Equipment

Stanley/X-acto Knife (anything sharp to cut paper and board)
Metal Ruler 24"
Bone Folder (shown in pictures later on, this is the most important tool, don't buy plastic ones, they snap)
Large Sewing Needle
A compact weight (a box full of change did the trick for me)
Brush for Glueing
3 Jars to stash glue and water.
Set Square (optional but useful)
A slab of wood (optional, you'll understand later on)
Tissues/Towel/Hankey to whipe brushes

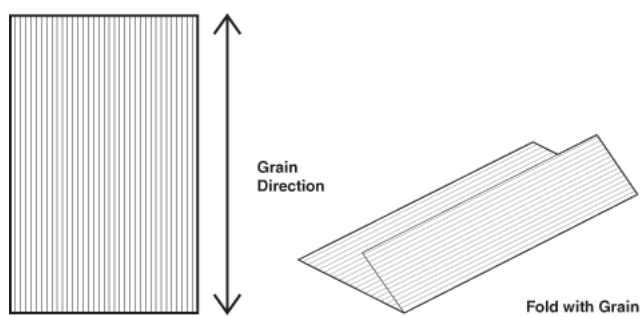
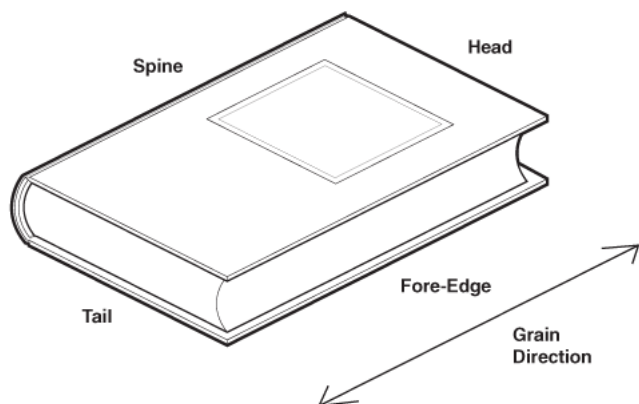
Supplies*

Paper
Book Binding Glue
Linen Thread (Guttermen is good)
Wallpaper Glue
Greyboard (hard board for the cover)
Manila Folders
Buckram/Fabric for the cover
Cotton Tape/Ribbon
Mull/Jaconet
Ribbon (for bookmark if desired)
A piece of 80gsm (roughly) cartridge paper
Headbands (coloured strips that go at end of spines, not neccessary but they are decorative, make it looks professional and guard the spine from dust)
Large sheets of scrap paper to glue on.

**I've found it difficult to source these things in Australia. Europe or America probably won't have any problems (names may differ). If your unable find them anywhere I recommend using the internet <http://www.talasonline.com/> is apparently good.*

The 1 Rule of Binding

There is only one rule. The grain direction must go from head to tail. This is the secret to a good book that stays open. If you have the grain going the wrong way the paper will ripple, the fold will not be clean and the book will want to close itself.



How to Find the Grain

This is an important step. We must find the grain of the paper. There are 4 ways.

1. *Feeling*
2. *Folding*
3. *Tearing*
4. *Wetting*

Feeling



This is the quickest and easiest way. Get the paper as though your about to fold it and press down lightly, rotate the paper 90 degrees and repeat. The direction with least resistance is the direction the grain is heading. This technique is less effective when working with thinner papers.

Folding

In this method completely fold the paper both ways, the direction with the cleanest fold is the direction of the grain. It is noticable when its been folded the wrong way, there will be small crinkles and folding is harder.

Tearing

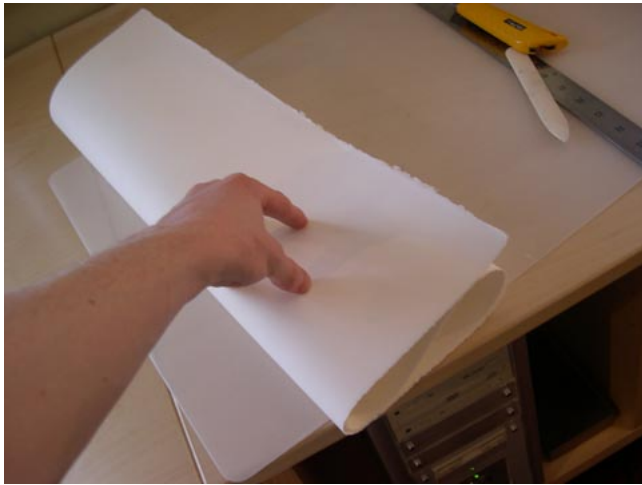
Tear the paper in both directions quickly. The rip will be fairly clean and stay straight if it has been torn in the direction of the grain. If you tear paper against the grain the rip often curves to one side and is messy

Wetting

If you wet the paper the paper will curl in the direction of the grain. Wetting just the corner is sometimes sufficient.

Cutting

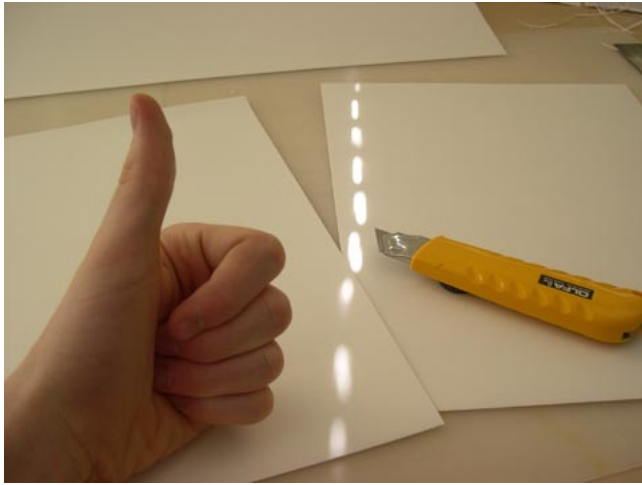
After finding the grain we are ready to begin. First, we need to pick the dimensions this will often be determined by the paper stock you get. I usually just semi fold it to get an idea of the options I have. For this book I decided to use the breadth of the paper folded a few times and then its height halved.



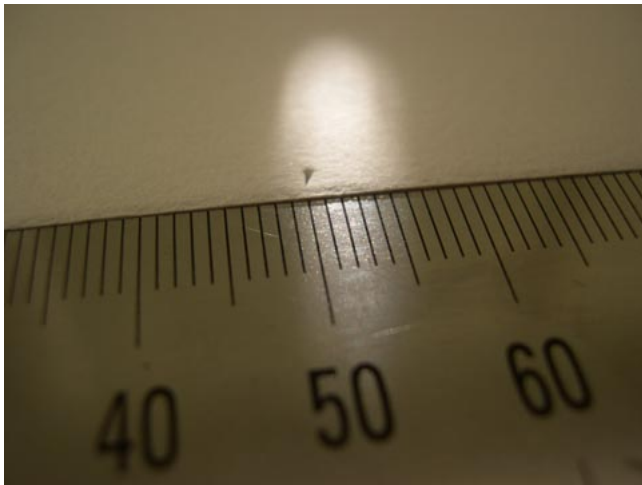
First, I removed the rough edges of the paper so I could measured it easily.



So then I cut the paper in half, and then half again.



It's easier to use your knife rather than a pencil to mark half way points!



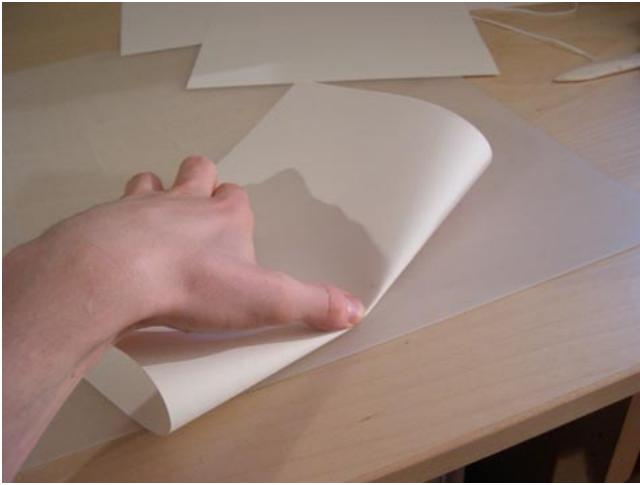
Folding

So I decided to do 2-up, meaning for each paper section I used two pieces of paper, one inside the other. I chose 2 because it was a thicker stock, thinner papers can handle 3. Here is my technique for folding.

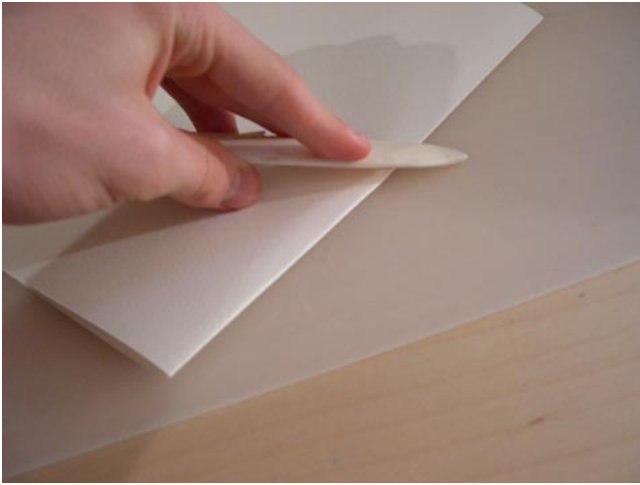
Lineup the edges



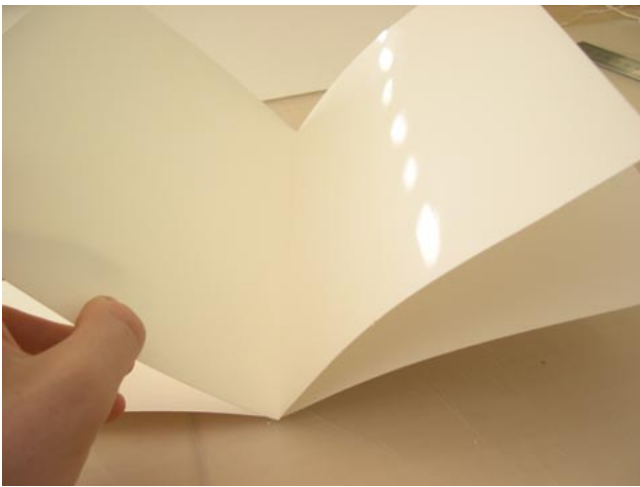
Push down the middle and then move out.



Give the fold a rub down with your bonefolder or maybe the back of a spoon or something if you don't have one. (Another good substitute is the tip of a potato peeler)



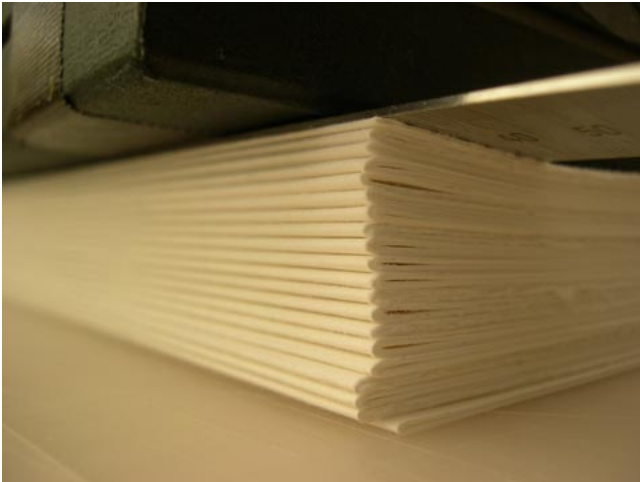
Start organising your folded paper into sections



Your little pile will slowly build up; I find this good motivation. This is the first sign of a book, you can start to feel how much it will weigh and how it feels in your hands



*Finally I press the paper for a little while under a weight, this is optional but I find it gives good results.
Onto Sewing!*



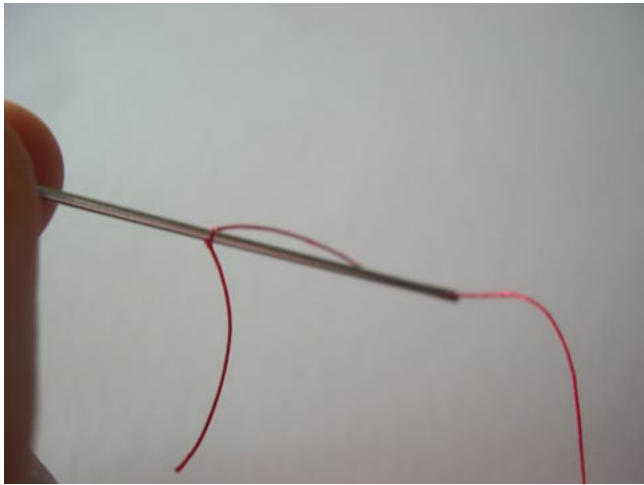
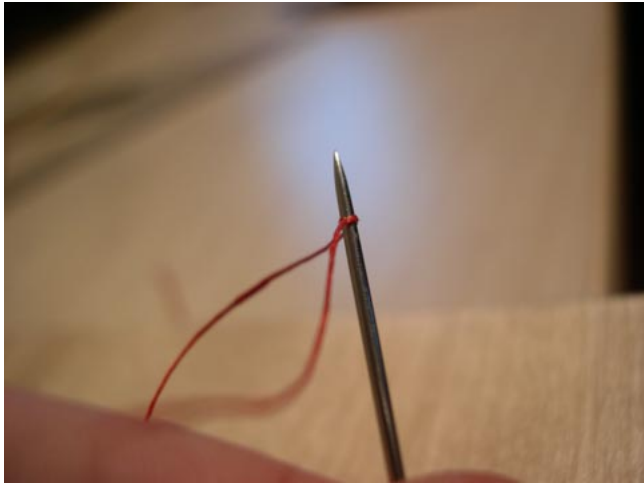


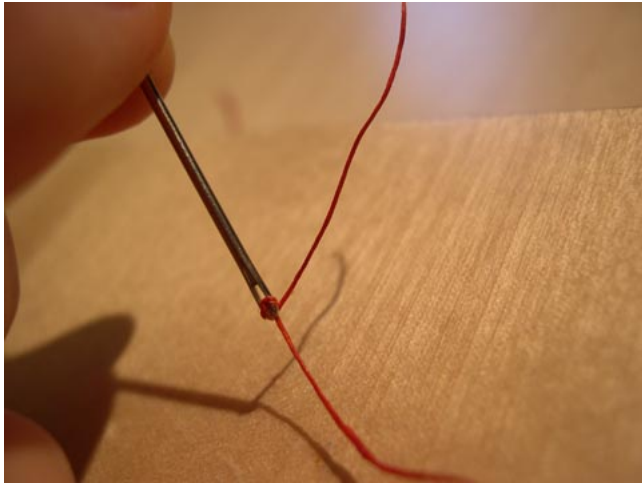
Sewing Cont'd

Red and Black is the colour scheme, use the colour of the thread as a design element.



The First step is threading the needle, the way I do it is to go through the eye then go back to the shorter end of the thread and push the needle through the middle of it. Then yank it, its pretty solid. The thread length depends on the size of the book, get enough to sew about half the book.



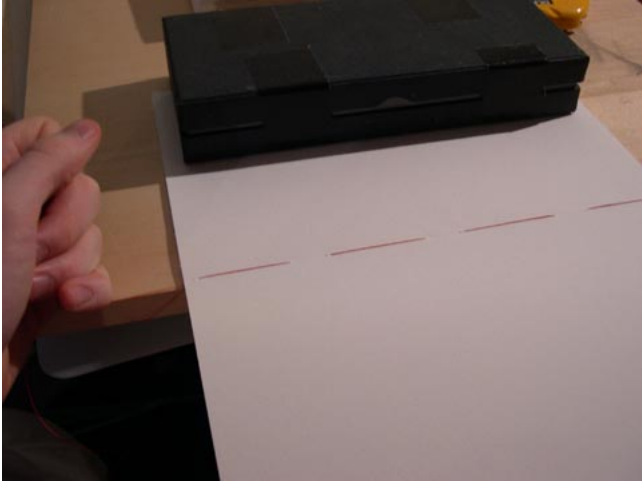


OK! Start from either end but make sure you go IN first from the outside. I find the easiest way to do this is to prick the holes from the outside then sew the whole section at once. You want to make holes close to the ribbon but not too close, give them room to breathe, maybe 1 or 2 mm. LEAVE SOME THREAD AT THE FIRST HOLE TO TIE IT OFF!

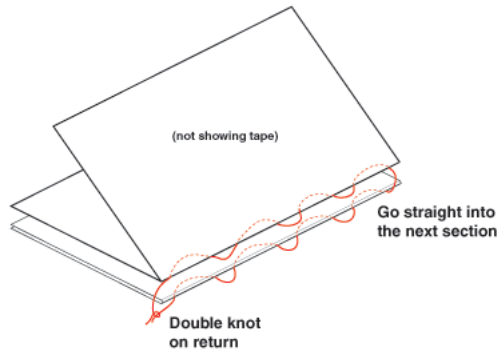
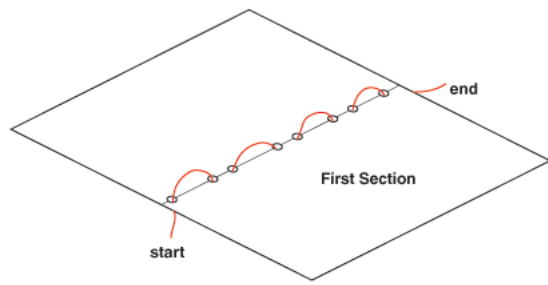


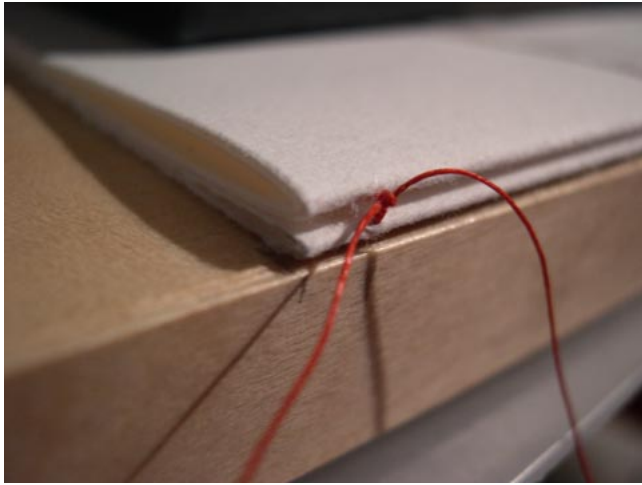
At this point, fold the first section back, give the thread a yank so it's firm and give it a rub on the fold with your bone folder. Now lift up your weight and put the second section on top. Set it up, with the new section open and the weight

on top. Prick your holes in the new section using the lower section for reference and just head back the other way. You'll end up like this.

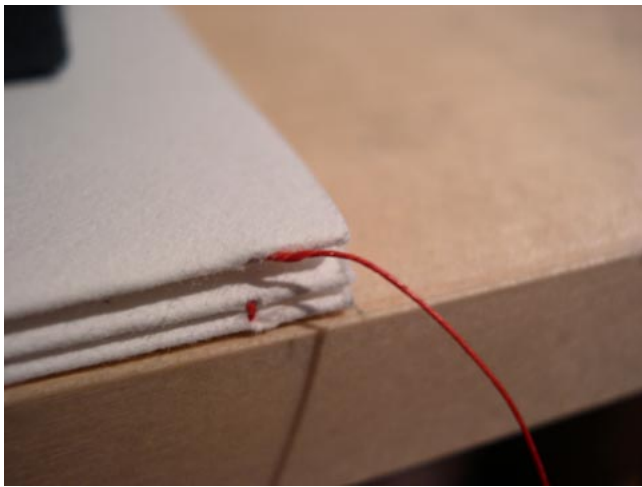


Heres a diagram for all you silly billies

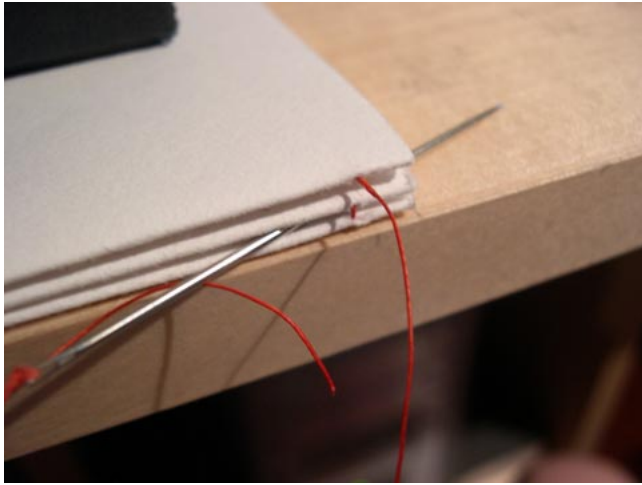




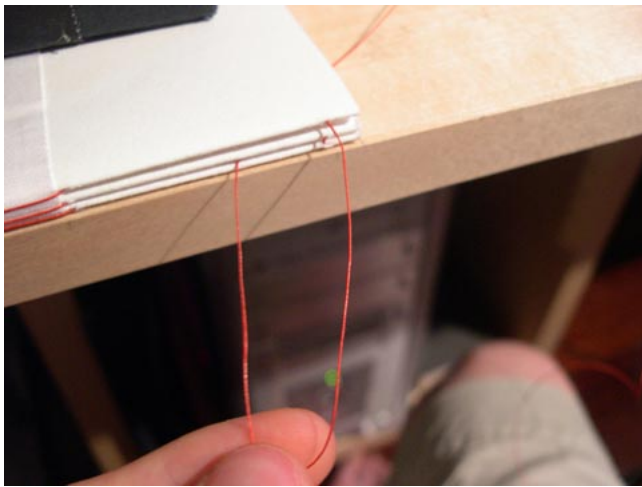
After you've tied it off, go straight into the next section, sew along and you'll get to this.



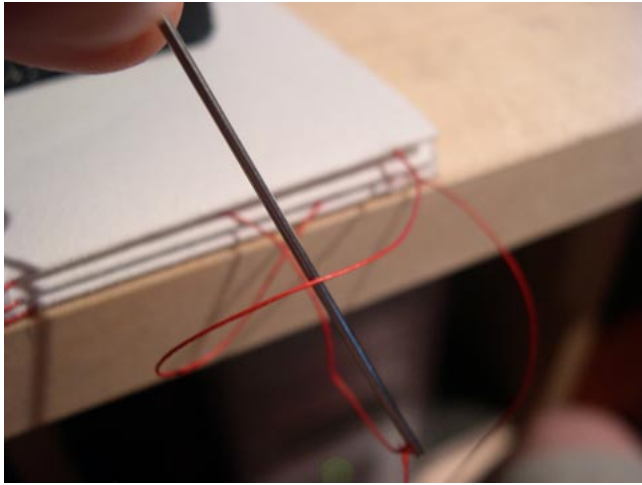
Go under the previous section, going from the inside to the outside



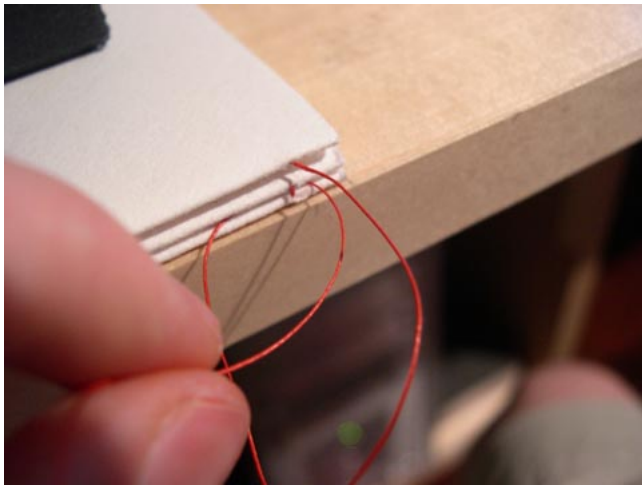
Pull it through!

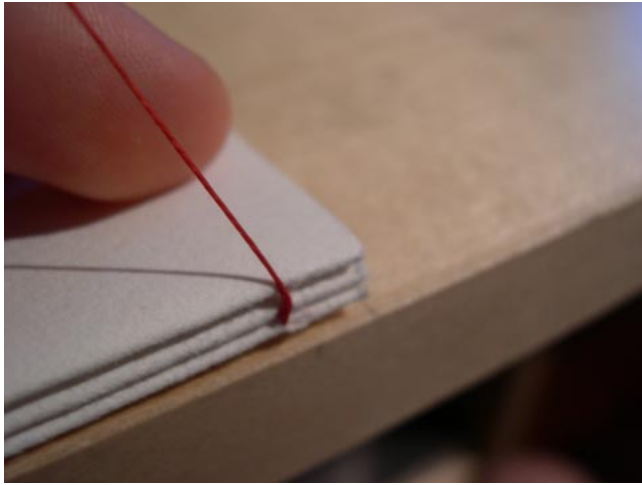


Then grab the needle and go back through the big loop you made



Make sure all the thread is pulled snug, not too tight though. Get it to about this stage and then give it a pull UPWARDS and do it quickly and firmly but don't yank it like a maniac. This is called a kettle stitch.





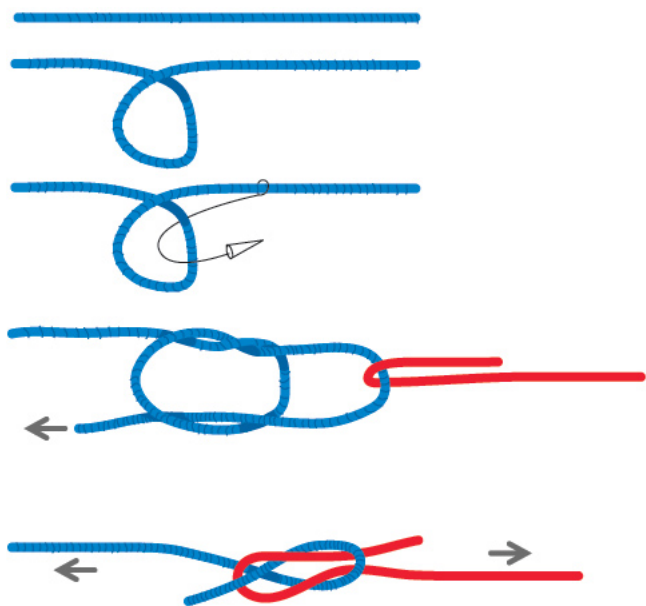
I like to do this twice (for the win). Repeat this technique until the end.

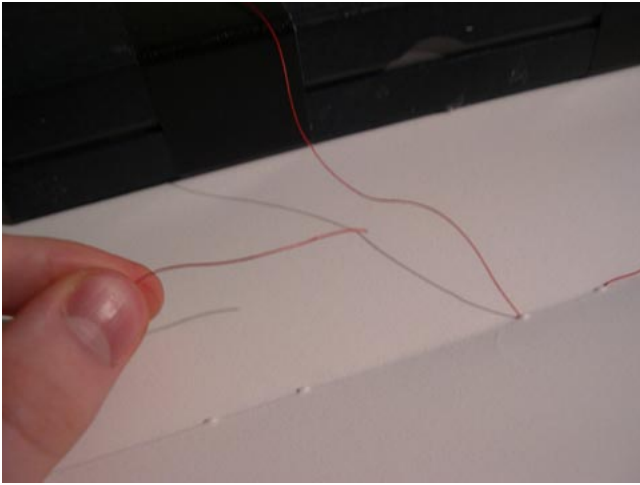
Note: The only place you need to do a double knot is at the start and finish of the paper block. As you sew it should just be: Go straight into the next section, sew along, do the kettle stitch then go straight into the next section, repeat. Try and keep the ribbons fairly firm and straight as you go and keep rubbing with your bonefolder.

Connecting Thread

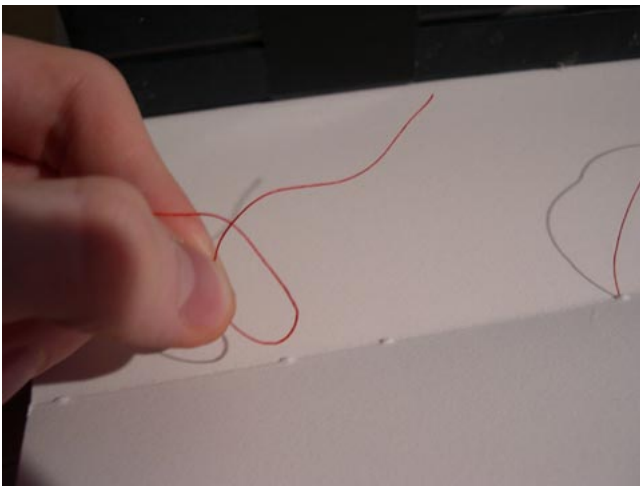
You will inevitably run out of thread and need to connect two separate pieces of thread to one another. ALWAYS JOIN THREAD INSIDE A SECTION not the outside.

Sorry for the shodiness, rope diagrams are hard.

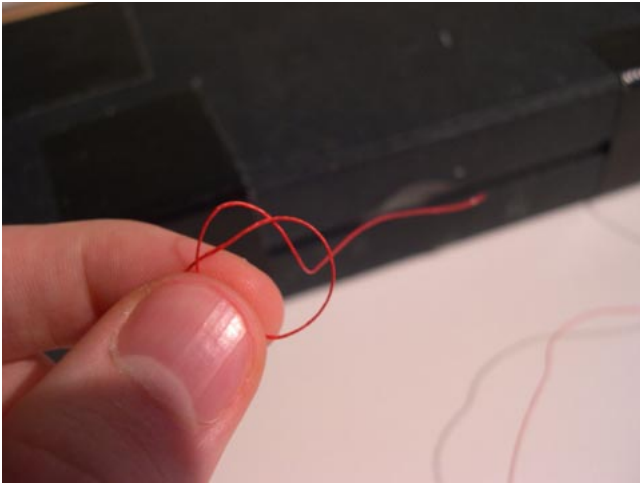




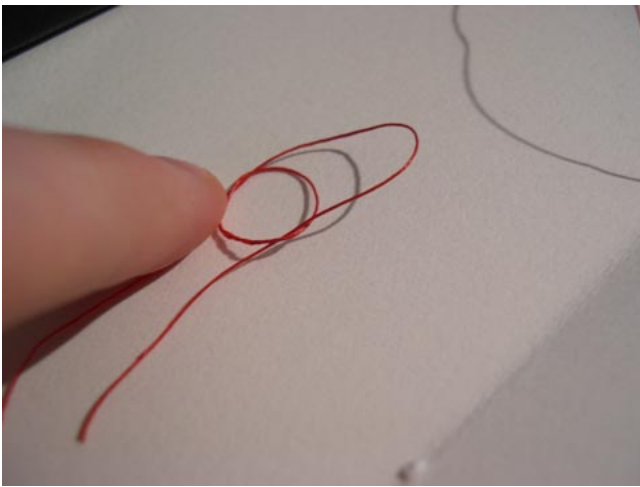
With your new piece of thread, curl it like this.



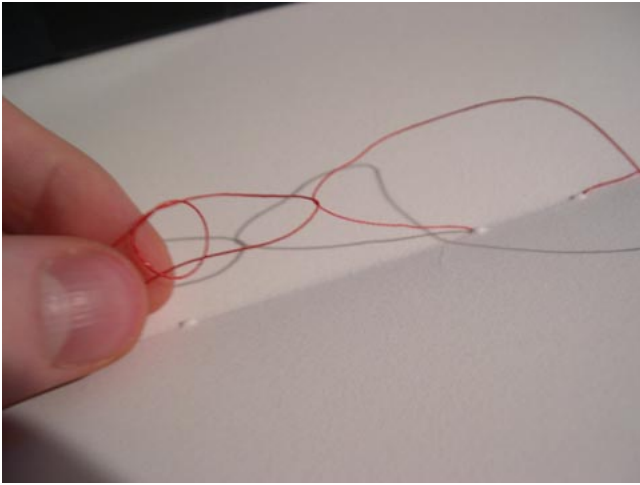
Reach through the loops and grab the short end, bring it towards yourself.



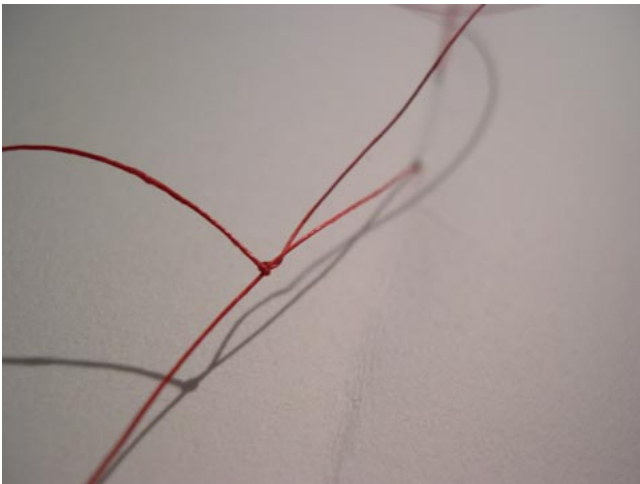
Pull it through and lay it down on the paper approximately where you want the join to be.



Now thread the old piece UP through the loop (not the circle)



Try to make an acute point by folding the old thread to a point. You want the circle to wrap around the old thread at the acute point. Pull the end of the new thread so the circle gets smaller and closer to the old thread and eventual wraps around it, then pull it tight.

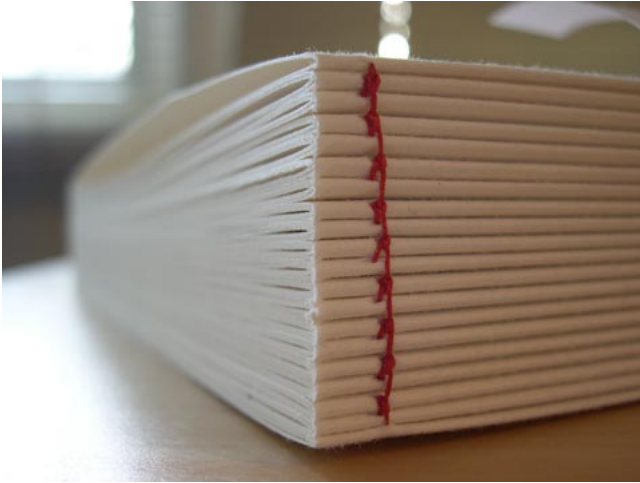


Trimming

Finished sewing? Good. Remove it from the table/wood. Starting to feel like a book? Have a play around with it, make sure it opens ok and everything is fastened snugly.



Now what we want is nice clean edges, take it to a printers, local stationery shop or anywhere that has a guillotine and someone you can trust will do it well, some local placed near me do it for free. DO NOT GO TO KINKOS, they are the devil. All you want is enough chopped off to make it squared off and straight.



This book has a curved spine, French style. You don't have to do it like this but I enjoy it. To get the curve you want just start pushing and shaping the spine by hand, when you have the curve desired put a weight on top and position it at the edge of the desk or your piece of wood, we're going to glue it!.



The Spine

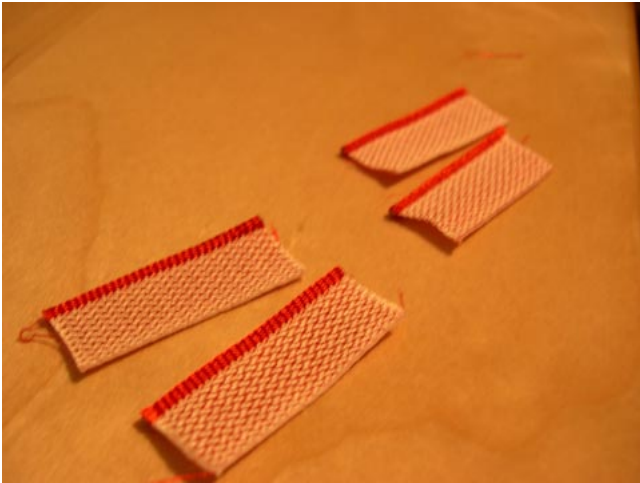
In this section we are going to secure the spine, this includes gluing, using mull/jaconet, putting the headbands on and a bookmark if you desire, then sealing it with one piece of paper to help secure everything.

I recommend cutting out all your stuff before you begin then you don't have to rush while the glue is drying :)

You need a bit of mull about this big, enough to wrap around to where the ribbon/tape goes to. I cut two pieces of mull for this for extra strength and durability.



Then you need some headbands! As I said before, black and red for this one. I went and bought some of this sweet ass red from my suppliers out in Sydney's Industrial area. Usually you only need 2 cuttings, one for head and one for the tail but you can double them up. Traditionally, the more flamboyant the headbands, the more important the book was, plus it draws attention. The headband should be just enough to wrap around the spine of the book snugly.





Ok time for the best bit! Spread the glue evenly over the whole spine, push the glue into the cracks with the bone folder and your fingers.

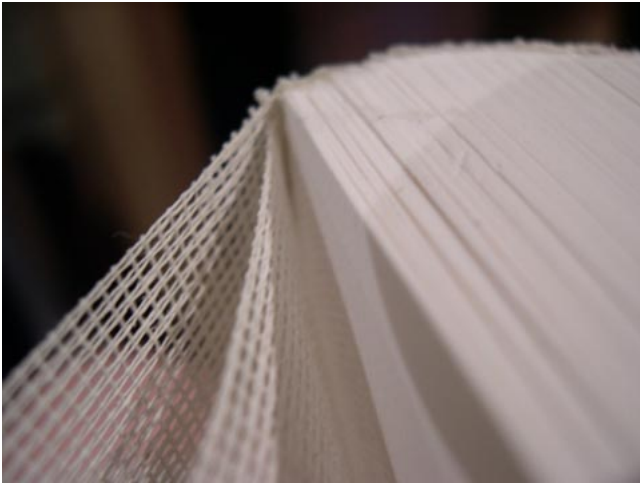




Once the glue became tacky I grabbed my first layer of mull and rubbed it in, then added another layer of glue on top of that



Taking off the weight quickly, I folded the edges in and put the new layer of mull on followed by more glue.

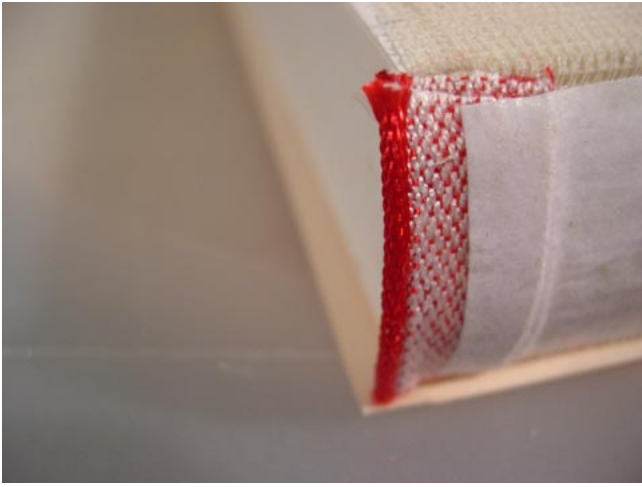


Now glue the headbands on, with glue underneath and on top. If you want a bookmark, glue it down the spine about 2 inches between the mull and the headbands.



Ok now finally while its all still wet, get your cartridge paper and cut out a strip then glue over the top (Yes make sure the grain is going the correct way). Feel free to make a mess, use random paper, or write messages on the spine, no one will ever see it, except maybe a book binder in 100 years time restoring the book, but I doubt that will ever happen.



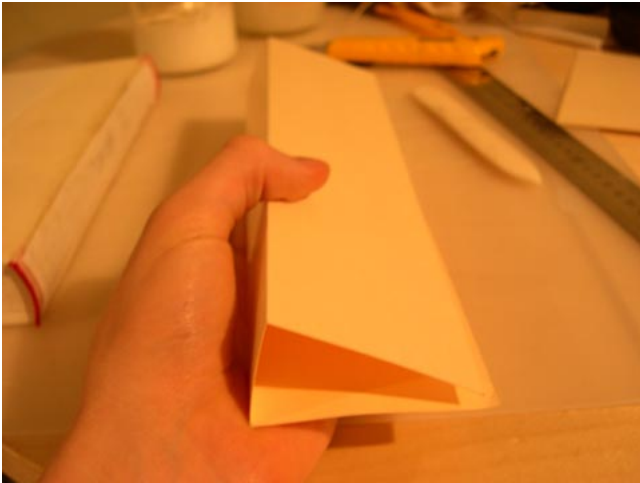


The Cover

First we need the manilla cardboard for the spine of the cover. Grain direction should be correct as always! The height will determine how big your cover is, so you want it to be at least the distance between your headbands. The width is up to you, often I find the width of one page is a good guide.



Fold the manilla at a point approximately in the middle then wrap it around the spine and find the placement of the second fold by eye.

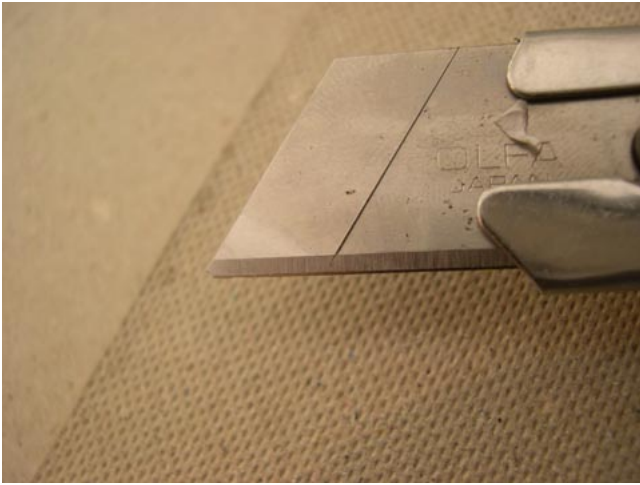


Once satisfied with your manila spine, you have to cut the greyboard (thick card), I chose quite thick board for this book for durability, quality and protection.

GRAIN DIRECTION APPLIES! It is very important the grain is going the correct way. It's very easy to find the direction in board, use the feeling method, it's virtually impossible to bend board against the grain.

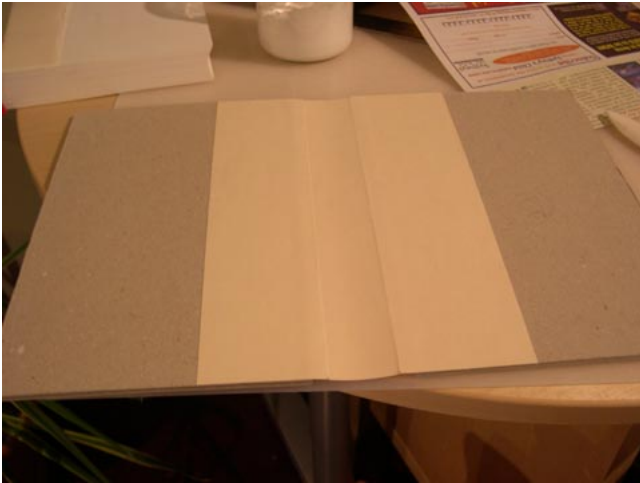
The height of the boards should be that of the manilla, the breadth is optional depending on how much over hang you want. The page width minus a few millimetres is often a good guide.



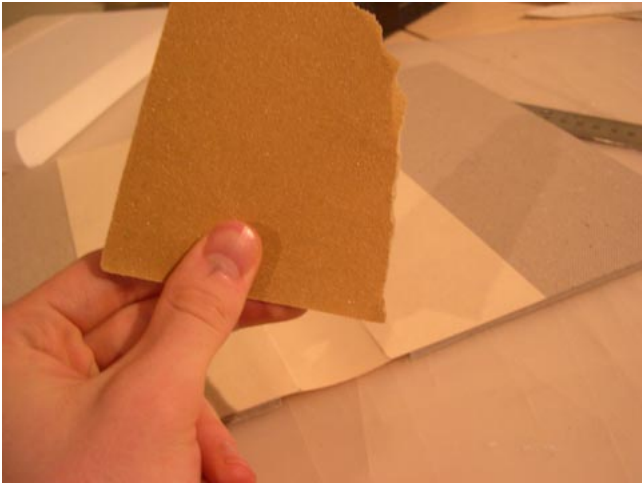


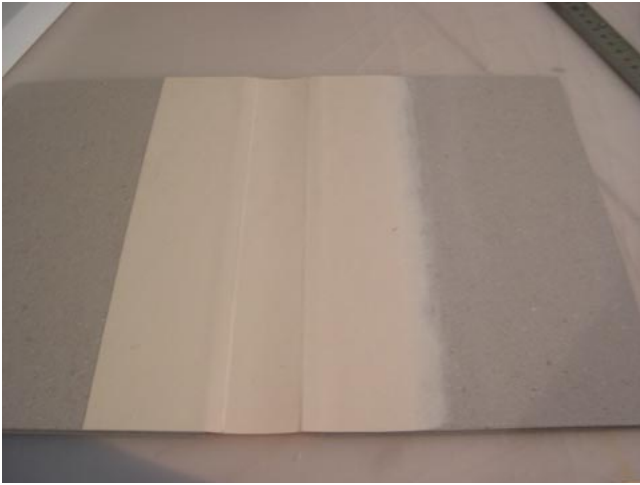
Ok we need to stick the greyboard to the manilla. Come out from the fold about 5-10mm. I think I did 7 or 8. Mark it with a pencil or pen. Then, get your board ready and spread glue from your mark on the manilla to the edges. Then place the board carefully, if you do this badly the cover won't be straight.





This step is optional. If you do this the inside cover of your paper will be smooth, if you don't there is a chance there will be a line resulting from the edge of the manilla. With thicker papers its less important. Grab some sandpaper after the glue has dried, and wear down the edge on both sides.

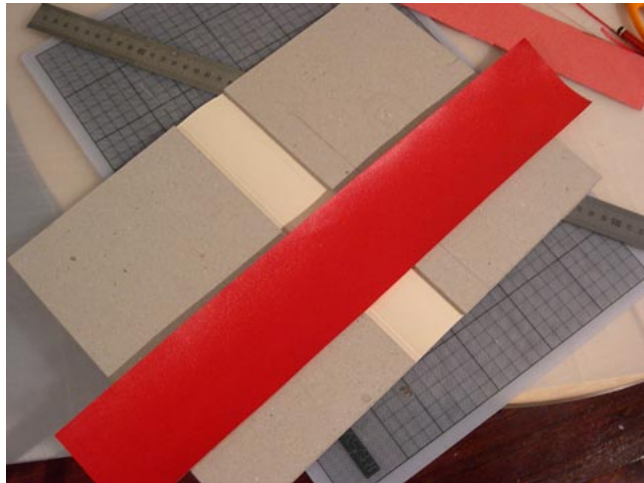




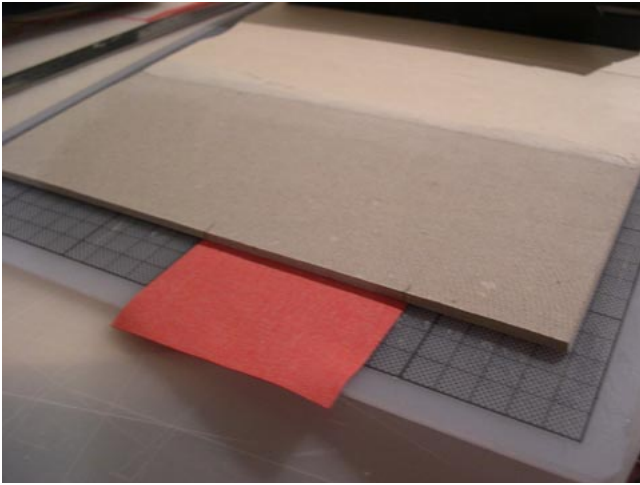
The Cover Cont'd

I apologise because this is a more complex way of doing a cover, hopefully you can figure out how I do it with just one fabric/colour. I came up with the design of a red stripe about 1/3 the way up. Figured out all the maths and cut a piece of buckram the right size.

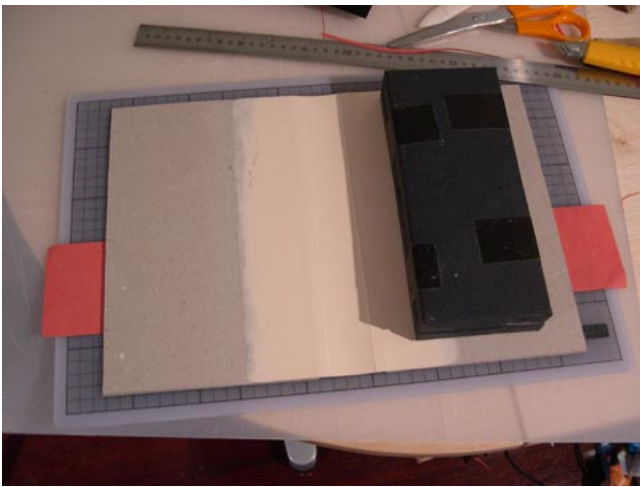
This photo is just a check, I was happy with the size of it.



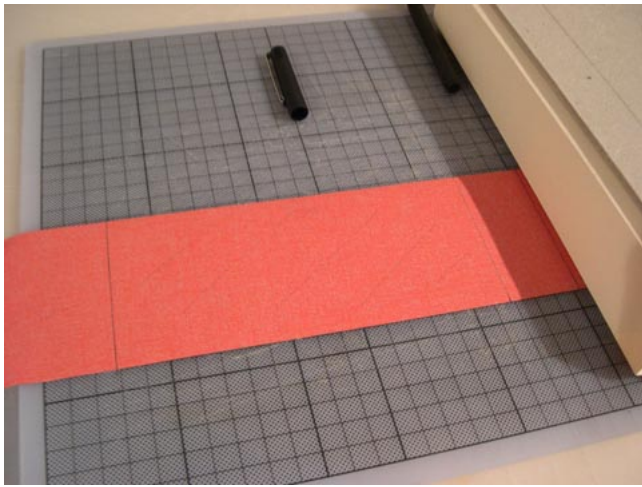
The next step is to flip it over and align it properly (there are marks where it should be)



I put my weight on the back cover



Lift up the left, and mark the segments for gluing and do the same for the other side.



Because gluing is stressful and quick I didn't have time to snap all the pictures I wanted. Basically what you do is: With the left cover lifted, glue the buckram on the left and the middle then push the left cover down. Move the weight onto the left cover and lift up the right, gluing the buckram underneath. Flip the cover over and with your bonefolder go in and make sure the buckram is sinking right down into the spine and there is no air bubbles anywhere. Sometimes the edges aren't stuck down very well and a little more glue requires adding.